

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 19 MAY 2004



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Applicant's or agent's file reference P005042-PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/BR 03/00001	International filing date (day/month/year) 03.01.2003	Priority date (day/month/year) 04.01.2002
International Patent Classification (IPC) or both national classification and IPC A61K7/42		
Applicant NATURA COSMETICOS S.A. et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
 - ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 30.07.2003	Date of completion of this report 19.05.2004
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Sierra Gonzalez, M Telephone No. +31 70 340-3751 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/BR 03/00001

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*):

Description, Pages

1-12 as originally filed

Claims, Numbers

1-15 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	11 12
	No: Claims	1-10 13-15
Inventive step (IS)	Yes: Claims	
	No: Claims	1-15
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

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1. The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: US5980871
D2: US5605652
D3: WO0172276

2. **NOVELTY** (Art. 33(2) PCT)

D1 discloses an oily dispersion of a mixture of titanium dioxide and zinc oxide in a carrier oil and an emollient (cf. column 4, lines 28-50; example 96; claims 1 and 2). These pigments are described as oil dispersible and therefore they will necessarily be in the oil phase (column 6, lines 24-36), independently of the fact that they are added to the oil phase in a separate step (two vessel process) or together with all other ingredients in a single step (one-vessel method). In any case, both possibilities are disclosed in D1 (column 7, lines 15-34). The oil phase of D1 contains at least two components: an oil carrier and an emollient. The oily dispersion as claimed in claim 1 comprises a dispersing vehicle and an emollient. The examining division fails to see any difference between the general terms of "oil dispersing vehicle" and "oil carrier". Accordingly, the subject-matter of claims 1 and 15 is considered not new.

The technical features of claims 2, 3, 5-7, 10 and 13 are also disclosed in the same paragraphs of D1. Therefore, these claims are considered not novel over D1.

D1 also discloses a method for preparing a dispersion like the one of the present application comprising mixing the carrier oily vehicle with emollient followed by adding the inorganic sunscreen agent under stirring (cf. column 7, lines 29-34 and 44-53). The inorganic sunscreen is described as titanium oxide, zinc oxide or combinations thereof. Accordingly, the subject-matter of claim 14 is not new.

D2 discloses a dispersion of titanium oxide in oil containing a

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dispersing agent and an emollient (example 1) mixed with the dispersion of zinc oxide in a dispersing agent and an emollient. Both dispersing agents and emollients are respectively polyhydroxy stearic acid and mineral oil. Therefore D2 discloses a dispersion of zinc oxide and titanium oxide in one single dispersing vehicle and one single emollient. See also column 4, lines 56-59 and examples 3 and 4. The dispersions are used in sunscreen composition. As a consequence, the subject-matter of claims 1 and 15 is also anticipated by this prior art.

The technical features of claims 3, 4, 8 and 9 are also disclosed in the same paragraphs of D2. These claims can not be considered novel over this prior art either.

The present application does not meet the requirements of Article 33(2) PCT because the subject-matter of claims 1-10 and 13-15 is not new.

3. INVENTIVE STEP (Art. 33(3) PCT)

The remaining subject-matter, that is the subject-matter of claims 11 and 12 can not be considered inventive for the following reasons:

The idea of formulating dispersions containing TiO₂ and ZnO together on an oily base (oily dispersing vehicle plus emollient) in order to increase protection against UV rays and to eliminate the whitish effect on the skin (page 2, lines 4-10) are known from the state of the art, as it has been acknowledged by the applicant (page 3, last paragraph). The idea is also disclosed in documents D1 (see the same paragraphs cited before) and D3 (see page 2, third paragraph, page 12, lines 21-24 and page 14, last paragraph). The subject-matter of claims 11 and 12 differs in that a specific dispersing vehicle and specific emollients respectively are used instead.

The problem to be solved by the present invention may therefore be regarded as providing an alternative oily dispersion of titanium dioxide and zinc oxide for protection against UV radiation. The proposed solution seems to be to find the

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dispersant and the emollient compatible with both pigments (page 2, lines 16-18. Actually the proposed solution then is the subject-matter of claims 11 and 12, i.e. the use of dipolyhydroxy stearate PEG 30 as dispersing vehicle (claim 11) and an emollient selected from the group isocetyl stearoyl stearate, glycerol tri-2-ethyl hexanoate and propoxylated stearyl alcohol. The concentration of each component seems also to be an essential feature of the present invention (page 2, line 19) and should be part of the solution.

This solution cannot however be considered as involving an inventive step for the following reasons: dipolyhydroxy stearate PEG 30 is a known dispersing vehicle and the compounds isocetyl stearoyl stearate, glycerol tri-2-ethyl hexanoate and propoxylated stearyl alcohol are known by their emollients properties. The addition of these compounds to a composition according to D1 or D3 seems to amount to the use of a known material for its known properties (PCT/GL C.IV. 8.8 A1 iii). Unless unexpected effects arising from the use of these particular compounds are shown, these selections can only be considered as one of the several possibilities from which the skilled person would select, in accordance with the circumstances, without the exercise of inventive skill, in order to solve the problem posed. So far, no unexpected effects or properties are shown in the application.

In view of the above, the present application does not meet the requirements of Articles 33(3) PCT, because the subject-matter of claims 11 and 12 does not involve an inventive step.

M. T. Sierra González